بسم الله الرحمن الرحيم

عنوان المحاضرة: **Sexually Transmitted Infections**

تاريخ المحاضرة : 15/4/2013

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Definition: Group of infections that are transmitted by sexual contact or any other intimate contact

Scope of the problem:
1-Common infections
2-Associated manifestations (e.g. Pain, pus, psychological troubles, systemic illness, ...)
3-Associated STIGMA
4-Not all of them can be cured
5-Have implications on pregnancy
6-Some infections are associated with genital malignancies

Risk Factors:
1-Multiple sexual partners 2-Young adults (15-24 years) 3-Pregnancy before 20 yrs
4-Previous termination of pregnancies 5-History of previous STI
6-Abnormal cervical cytology 7-Involvement in sexual industry

Types:
A) Bacterial: Syphilis - Gonorrhea - Chlamydia B) Viral: HPV - HIV - HSV
C) Protozoal: Trichomonas vaginalis - Scabies - Pubic lice

Chlamydia:

Epidemiology: obligatory intracellular pathogen

C/P: -Asymptomatic -↑ Vaginal discharge -Often found in screening or with complications

Diagnosis: -Endocervical swab -Urethral swab -First catch specimen of urine

Complications:
1-PID 2-Perihepatitis 3-Reiter's syndrome 4-Tubal infertility 5-High risk of ectopic pregnancy

Treatment:
-Azithromycin 1 g single dose or Doxycycline 100 mg bd for 7 days
-Contact tracing & Treatment

Implication on pregnancy:
-PPROM -PTD -LBW -Postpartum endometritis -Baby risk of neonatal conjunctivitis & pneumonia

Gonorrhea:

Epidemiology: Intracellular gram negative diplococci

C/P: -Asymptomatic -GREEN vaginal discharge

Diagnosis: -Endocervical swab -Urethral swab -Rectal swab -Pharyngeal swab

Complications:
1-PID 2-Bartholin abscess 3-Disseminated gonorrhea (e.g. arthritis, pharyngitis,...)
4-Tubal infertility 5-High risk of ectopic pregnancy

Implications on pregnancy:
1-PPROM 2-PTD 3-Chorioamnitis 4-Postpartum endometritis 5-Ophthalmia neonatorum

Treatment: -Ceftriaxone 250 mg IM single dose or Cefixime 400 mg orally in a single dose
-Spectinomycin 2 g IM a single dose
-Contact tracing & treatment - Sexual abstinence during treatment

Syphilis:

Epidemiology: CO→ Treponema Pallidum (Spirochetes) , occurs in 3 Stages (1ry, 2ry, 3ry)

C/P:

A) Primary Symptoms:

-(10 – 90) days post infection -Painless genital ulcer (chancre) -Inguinal lymphadenopathy

B) Secondary Symptoms:

-Occurs within 1st 2 years -Generalized polymorphic rash -Generalized lymphadenopathy

-Condyloma lata (warty erosions in the genitals and perineum)

C) Tertiary Symptoms:

-40% of case after > 10 years -Tabes dorsalis, dementia -Cardiovascular symptoms

Diagnosis:

-Smear (dark fielded microscopy)

-Screening: VDRL - RPR

-FTA-Abs (Fluorescent Treponemal Antibody absorption) : the most sensitive

Complications: Tertiary syphilis (brain damage, heart damage, retinal damage)

Implications in pregnancy: 1-PTD 2-Still birth 3-Congnital syphilis

Treatment:

-1ry, 2ry or Early latent syphilis → Benzathine penicillin G 2.4 million units IM in a single dose

-Late latent syphilis → Benzathine penicillin G 7.2 million units total, as 3 doses of 2.4 million units IM each at 1-week intervals

*Use Tetracycline in case of Penicillin allergy except in pregnancy → use penicillin after desensitization

-Congenital Syphilis → Procaine penicillin G 50,000 units/kg/dose IM in a single daily dose for 10 days

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Human Papilloma Virus:

Epidemiology: DNA Virus, many subtypes: Subtypes 6,11 → Genital warts (Condyloma accuminata)
Subtypes 16,18 → CIN & Cervical malignancy

C/P: -Asymptomatic -Genital warts (Localized or catch on clothes) -Skin irritation

Diagnosis: -Clinical Appearance -Cervical smear -Biopsy from warts

Implications in pregnancy:

-Grows rapidly & regress after delivery

-Excision not recommended as it is very vascular → Bleeding

Treatment: -Podophyllin (Not in pregnancy) -Trichloroacetic acid -Cryotherapy
-Surgery (Excision or diathermy) -Vaccination

Herpes Simplex Virus

Epidemiology: DNA virus, Type 1→ Oral & Genital, Type 2 → Genital

C/P:

-Flu like symptoms -Inguinal Lymphadenopathy -Vulvitis & Pain (Urine retention)

-Small characteristic vesicles on vulva

-Recurrence: triggered by: Stress - Sexual intercourse - Menstuation

Diagnosis: -History & appearance of the rash -Culture -Serum antibodies

Complications: 1-Meningitis 2-Transverse myelitis 3-Sacral radiculopathy 4-Disseminated infections

Implications in pregnancy:

-Primary infection (for the 1st time) → Miscarriage or PTD but NO congenital abnormalities
, but in 50% of cases: the baby will have Neonatal Herpes

-Risk of neonatal herpes ↓ with recurrent infection as mother will have antibodies to pass to baby
-Neonatal Herpes is a serious disease: as in 25% the infection is localized to eye & mouth but in 75% of the case, the baby will have Disseminated Infections from which 70% will die and the rest will have long term problems (e.g. Mental Retardation)

Management:
-NO CURE for genital herpes -Acyclovir → ↓ severity of the disease -Simple analgesics & ice packs
*In pregnancy: -Acyclovir (Safe)
-If delivery is within 6 wks from 1ry infection → CS, but if > 6 wks or ROM > 4 hrs → Vaginal

Human Immunodeficiency Virus (HIV)

Epidemiology: Retrovirus (RNA), 2 Types (I & II), Affects cell mediated immunity

C/P:
-80-90%→ asymptomatic carrier -Medial time to AIDS is 10 yrs
-Initial exposure: -Incubation period: 2-4 wks -Flu like symptoms -Lymphadenopathy
-Later: -Generalized lymphadenopathy -Unusual infections: Oral candidiasis, HZV
-Final Stage: -Kaposi's sarcoma -Opportunistic infections -Malignancies -Weight loss -Finally DEATH

Diagnosis: -ELISA -Western Blot -Virus Load -CD4 count

Implications in pregnancy:
-Without ttt, Infection passes to fetus in 15-25% of cases, Risk of transmission ↑ with breast feeding
****Transmission is reduced to 2% by:*** HAART, CS, Avoid Breast feeding

Treatment: 1-Physchological 2-ART & HAART 3-Vaccines 4-Search for Associated problems

General Principles in Treatment of STIs:

1-STIs hunt in PACKS, so if one is identified → search for other infections
2-Keep patient confidentiality & respect all the time
3-Do not disclose information except in cases of expected harm to others & do that in a way keeping patient's dignity & respect
4-Contact tracing & treatment is an integral part in management
5-Psychological & behavioral evaluation & counseling
6-Identify associated problems (e.g. Addiction)
7-Follow up is MANDATORY
8-Be aware about implications of STIs in Pregnancy